

Amend as follows:

IN THE CLAIMS:

15. A claw pole generator, having a rotor (20) of claw pole construction, wherein the rotor (20) is formed of a pole wheel half (22), wherein said pole wheel half (22) is connected to a rotor shaft (32) in a manner fixed against relative rotation, and wherein said pole wheel half (22) is also connected to a pole carrier (26)], also connected in a manner fixed against relative rotation to the pole wheel half (22)] only by a retaining means in a manner fixed against relative rotation, wherein the rotor (20) has first claw poles (28) and second claw poles (29), wherein the first claw poles (28) are formed by the pole wheel half (22) and the second claw poles (29) are formed by the pole carrier (26), wherein the first claw poles (28) alternate, on the circumference of the rotor (20), with the second claw poles (29), and claw pole interstices (36) are located in the circumferential direction between the first claw poles (28) and the second claw poles (29), characterized in that the retaining means (34) is disposed at least partly in the claw pole interstices (36), and the retaining means (34) is connected by material engagement[, in particular by] selected from one of welding, soldering or adhesive bonding, to the first claw poles (28) and to the second claw poles (29).

16. The claw pole generator of claim [1] 15, characterized in that the first claw poles (28) and the second claw poles (29) have claw pole flanks,

extending in particular radially inward, and the retaining means (34) is connected at the claw pole flanks (40) to the pole wheel half (22) and to the pole carrier (26).

17. The claw pole of claim [1] 15, characterized in that the retaining means comprises many individual retaining elements (44).

18. The claw pole of claim [3] 17, characterized in that each two adjacent retaining elements (44) are joined to one another by tabs (48) in the region of a first and a second claw pole end (46; 47).

19. The claw pole of claim [4] 18, characterized in that the tabs (48) are bent at an angle relative to a rotor shaft (32).

20. The claw pole of claim [4] 18, characterized in that the tabs (48) located on the pole wheel half (22) [and/or on the pole carrier (26)] terminate flush with an axial outer side (50) [of the pole wheel half (22) and/or] of the pole carrier (26).

21. The claw pole of claim [4] 18, characterized in that the retaining means (34) comprises one piece, and the tabs (48) integrally connect the retaining elements (44).

22. The claw pole of claim [7] 21, characterized in that the one-piece retaining means (34) has a substantially cylindrical-jacketlike structure, which has open recesses, alternating on the pole carrier and the pole wheel, for the first claw poles (28) and the second claw poles (29), respectively.

23. The claws pole of claim [3] 17, characterized in that legs (54) of the retaining elements extend to both sides of the first and second claw poles (28; 29) in an essentially radial direction, approximately parallel to the first and second claw pole flanks (46; 47).

24. The claw pole of claim [9] 23, characterized in that two opposed legs (54) in a claw pole interstice (36) are each connected by one web (56) in the region of a respective free first and second claw pole end (46; 47).

25. The claw pole of claim [9] 23, characterized in that the legs (54) are joined on their radially inward-oriented ends (62) by a profile closing element (60), creating a closed hollow profile (61).

26. The claw pole of claim [11] 25, characterized in that the hollow profile (61) is closed on one [of its] axial end[s] by [the] a tab (48) and is open on [its other] another axial end.

27. The claw pole of claim [5] 19, characterized in that each two adjacent legs (54) of [two claw pole interstices] the retaining elements are connected by a pole end web (68) below the first and second claw poles (28; 29).

28. The claw pole of claim [1] 15, characterized in that at least one permanent magnet (70) is secured to the retaining means (34).

Please add the following new claim:

29. The claw pole of claim 18, characterized in that the tabs (48) located on the pole carrier (26) terminate flush with an axial outer side (50) of the pole wheel half (22).

REMARKS

The present amendment is submitted in response to the Office Action dated June 19, 2002, which set a three-month period for response. Filed herewith is a Request for a Two-Month Extension of Time, making this amendment due by November 19, 2002.

Claims 15-28 are pending in this application.

In the Office Action, the claims were objected to on the basis that the numbering of the claims is not in accordance with 37 CFR 1.126. The misnumbered claims 1-14 were renumbered as claims 15-28, respectively. Claims 15-28 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 15-28 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,483,116 to Kusase et al. Claims 15-21, 23-25, and 27-28 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,969,459 to Taniguchi et al. Claims 15-17 and 28 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,037,695 to Kanazawa et al. Claims 15-21, 23, and 28 stand rejected under 35 U.S.C. 102(b) as being fully anticipated by U.S. Patent No. 6,150,746 to Lechner. Claims 15-17 and 28 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,013,967 to Ragaly et al.

Turning first to the objection to the claims, the Applicants thank the Examiner for renumbering the claims, and have further amended all of claims 15-

28 in this amendment to reflect the new claim numbering in the claim dependencies.

Regarding the rejection of claims 15-28 under Section 112, second paragraph, claim 15 has been amended to provide that the "retaining means is connected by material engagement selected from one of welding, soldering and adhesive bonding...", as the Examiner suggested.

Claim 20 has been amended to define that the tabs (48) located on the pole wheel half (22) terminate flush with an axial outer side (50) of the pole carrier (26). New claim 29 has been added, which recites the alternative limitation, specifically, that the tabs (48) located on the pole carrier (26) terminate flush with an axial outer side (50) of the pole wheel half (22).

Claim 23 has been amended to recite that the "legs" are the "legs of the retaining elements", as the Examiner proposed.

Claim 26 was amended to provide proper antecedent basis for the term "tab", and the terms "its" were omitted.

Finally, claim 27 was amended to recite "each two adjacent legs of the retaining elements", as the Examiner suggested.

Turning now at the substantive rejection of the claims under Section 102, the Applicants have amended claim 15 to more clearly define the present invention over the cited references. Specifically, amended claim 15 now provides that the pole wheel half (22) is connected to a rotor shaft (32) in a manner fixed against relative rotation, and that the pole wheel half (22) is also connected to a pole carrier (26) only by a retaining means in a manner fixed

against relative rotation. The Applicants respectfully submit that amended claim 15 defines a patentably distinct set of features that is not disclosed by any of the cited references.

As disclosed on page 1 of the specification of the present application, the present invention departs from the known generators of the type described in the publication "Bosch: Technische Unterrichtung Generatoren (1998-1999 edition). The Applicants attach pages 25-27 of this reference for the Examiner's review. In Figs. 10, 11 and 12, generators with so-called conducting piece runners. As set forth in the specification, this known rotor includes first a pole wheel half, connected to the pole wheel half in a manner fixed against relative rotation, and a pole carrier that is connected to the pole wheel half in a manner fixed against relative rotation by means of a retaining means. The pole carrier is not a pole wheel half, rather, as is disclosed in the reference, is a substantially ring-shaped conducting piece. The pole carrier is only connected to the opposite pole wheel half, is not self-supporting, and is not directly connected to the rotor shaft.

The same principle as described above with reference to the Bosch document is shown in the attached patents, U.S. Patent No. 5,543,677 and GB 2 330 013. GB '013 shows in Fig. 1 practically the same runner, or rotor, as in the above-described Bosh document. The drive shaft 18 supports a pole wheel 19 on its right side; the conducting piece 26 (or the pole carrier) is connected with the pole wheel half, or the drive shaft, by means of a non-magnetic ring 25. Thus, also here, the pole carrier is only connected indirectly to the rotor shaft.

As amended claim 15 of the present application provides the pole wheel half 22 is connected to the pole carrier 26 only by means of a retaining means 34 in a non-rotatable manner, as provided in the Background of the Invention and Summary of the Invention of the present application. As explained on page 6, lines 14-25 of the present application, analogous to a known generator in the state of the art, the mechanical connection between the pole wheel half 22 and the pole carrier 26 would be provided only via the retaining means 34 and first claw poles 28 and second claw poles 28.

In the Office Action, it appears that the Examiner has focused on the aspect of the attachment or securing of the permanent magnet. This aspect is only a secondary, essential point in the attachment of the pole carrier 26 to the pole wheel half 22 by means of the novel retaining means. On this basis, too, the present invention departs from the above-described state of the art.

In the cited patent to Kusase, a holding means (magnet holder 12) is disclosed, which, however, only serves for retaining the permanent magnets 11. The holding means itself is only clamped by form-locking between the pole wheel halves. Any attachment by means of material engagement or other attachment means is not provided by Kusase. The pole wheel halves are only connected to one another via the rotor shaft. Thus, amended claim 15 of the present application is not anticipated by the Kusase reference.

Likewise, the patent to Taniguchi et al discloses a magnet holder 28, which is disposed between claw poles 18 and 20. No attachment of the magnet holder 28 (retaining means) to the claw poles 18, 20 is disclosed. In addition, the

magnetic holders 28 are secured under one another by means of end plates 30, 32, 40, 42, 60, 62. The form of the magnet holder 28 and end plates 30, 32, 40, 42, 60, 62 is form-locking, again, also between the claw poles 18, 20. No attachment by means of material engagement or other attachment means is provided in Taniguchi. The pole wheel halves are only attached to one another via the rotor shaft. Thus, again, amended claim 15 is also not anticipated by the Taniguchi reference.

The subject matter of the cited patent to Kanazawa et al differs from the subject matter of amended claim 15 in that, also in Kanazawa, only the pole wheel halves (hook-shaped magnetic poles 6A, 6B) are disclosed, which both are retained first by means of the shaft 2. The connection shown in Kanazawa's Figs. 6 and 8 of the first and second claw poles (hook portions 8A and 8B) by means of the protection cover 12 and the welded portions applied thereto serve only for protecting the magnets 11 mounted thereunder. The Applicants respectfully submit that the protection cover 12 cannot be equated or compared with the claimed retaining means for the "pole carrier 26" to the "pole wheel half 22", as defined in the present application. Such a reading of Kanazawa amounts to a retrospective consideration of this reference in light of the present invention.

Also in the cited patent to Lechner, no connection between the first and second claw poles is disclosed. In addition, the tongues 2b are connected with the outer sides of the pole plates 7, not with the claw poles.

The patent to Ragaly et al, like Kanazawa, shows a connection of two pole plates 21, 23 by means of holding strips 13, which serve for attachment of

permanent magnets 30. Again, the Applicants respectfully submit that these holding strips 13 cannot be equated or compared with the retaining means for the pole carrier 26 to the pole wheel half 22, as defined in the present application. And again, equating the holding strips to the retaining means of the present invention amounts to a prohibited, retrospective reading of the Ragaly reference in view of the present invention.

Without exception, all of the cited references disclose two pole wheel halves, whose first and second claw poles engaged in one another interchangeably. In all of the references, the pole wheel halves are directly connected to one another by means of the rotor shafts. In Kanazawa and Ragaly, the retaining elements for the permanent magnets, in addition, are connected with the first and second claw poles. In Ragaly, no "pole carrier", in the sense of the present invention, is attached to the "pole wheel half".


Therefore, the Applicants respectfully submit that amended claim 15 and dependent claims 16-29 are patentable over the cited art. The Applicants further request withdrawal of the rejections under 35 U.S.C. 102 and reconsideration of the claims as herein amended.\

In light of the foregoing arguments in support of patentability, the Applicants respectfully submit that this application stands in condition for allowance. Action to this end is courteously solicited.

Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss

appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,



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